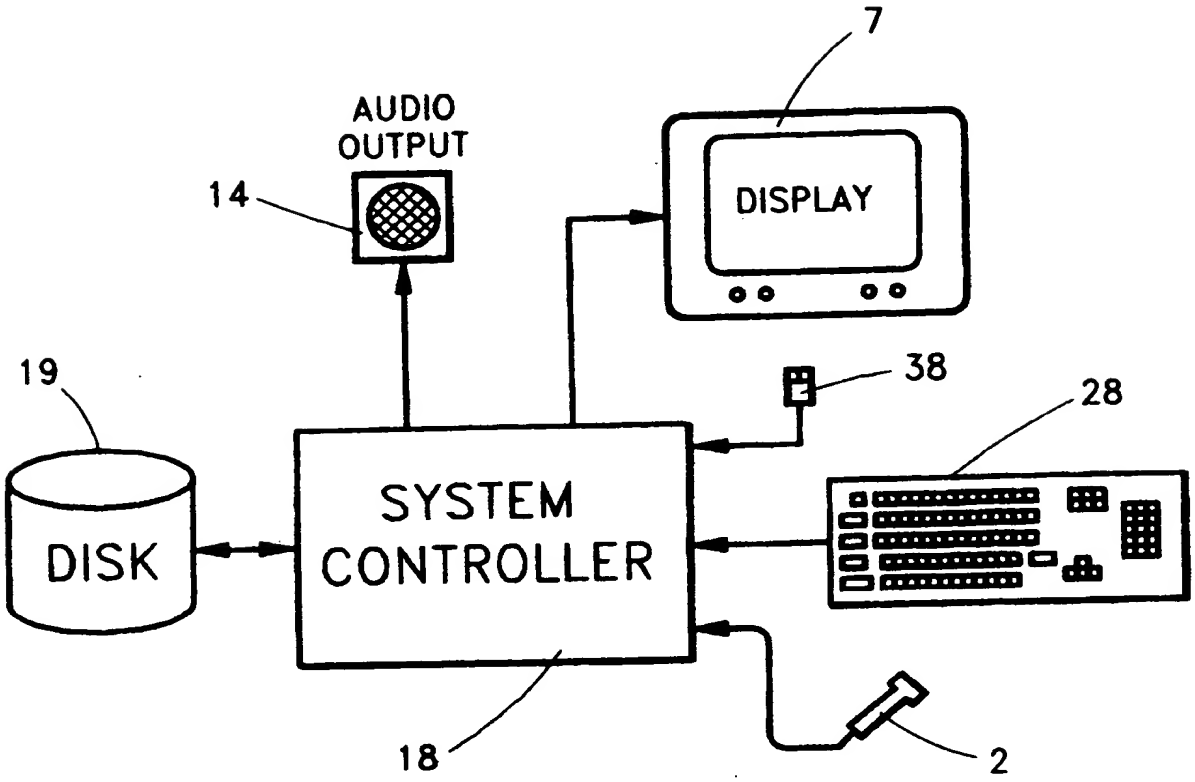

7
AUDIO
OUTPUT
14
DISPLAY
19
38
28
SYSTEM
CONTROLLER
DISK
18
2

FIG. 1

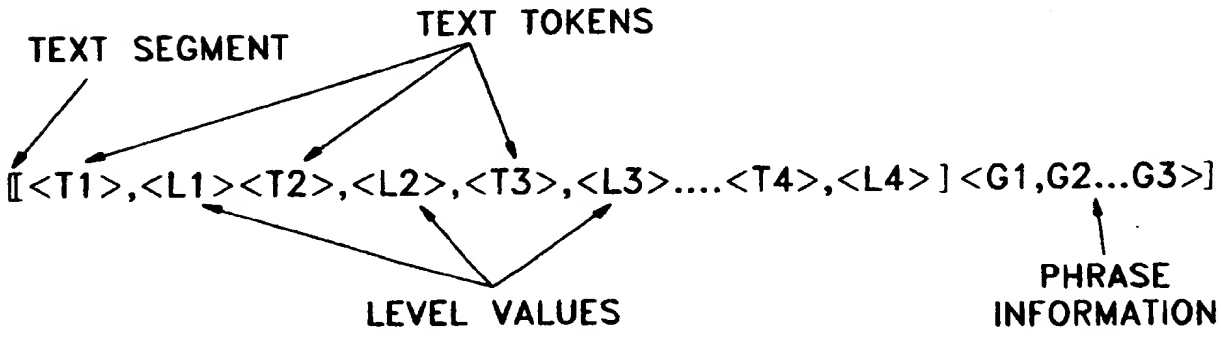

TEXT SEGMENT
TEXT TOKENS
[[<T1>,<L1><T2>,<L2>,<T3>,<L3>....<T4>,<L4>] <G1,G2...G3>]
LEVEL VALUES
PHRASE
INFORMATION

FIG. 3

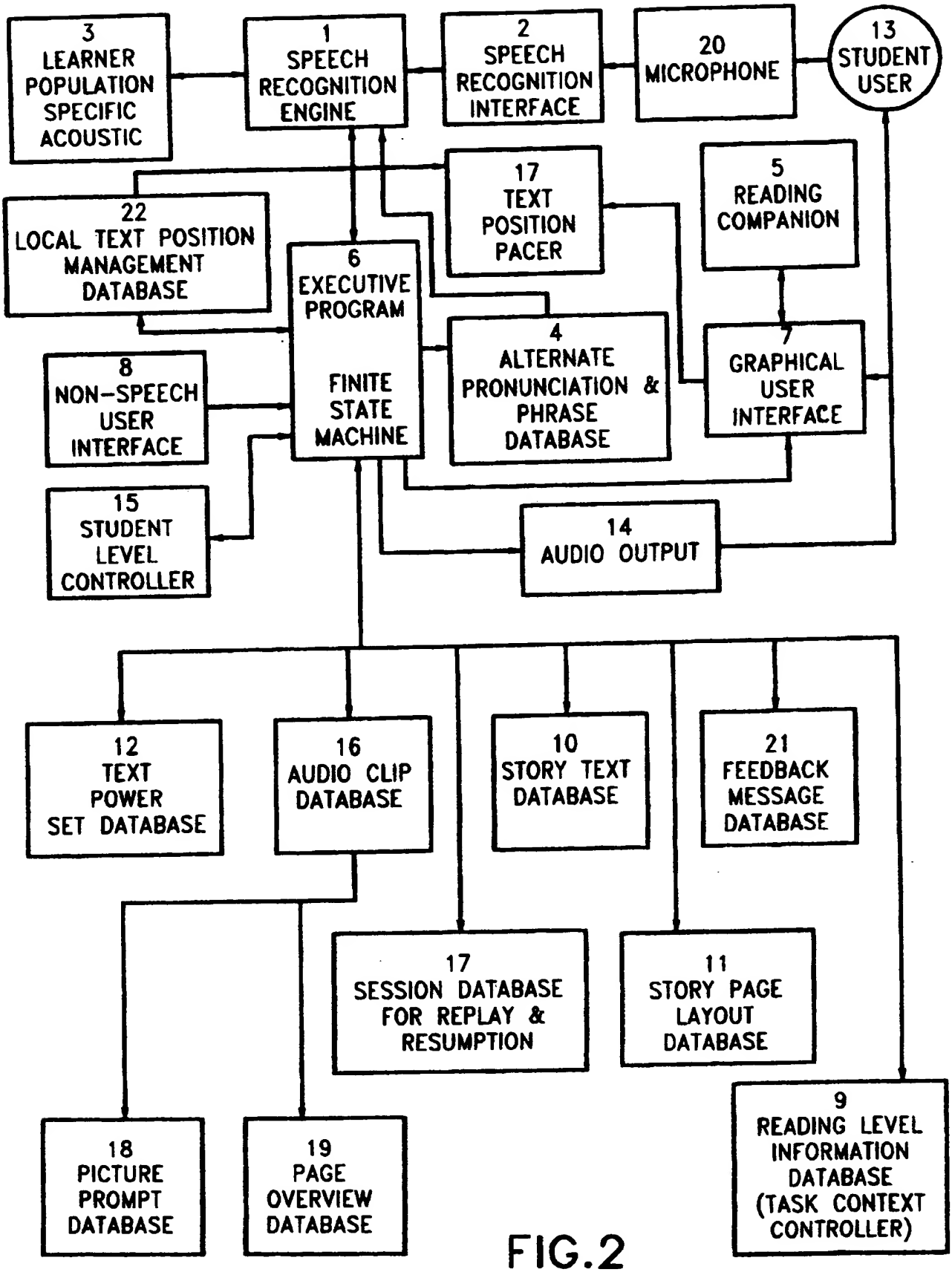

3
LEARNER POPULATION SPECIFIC ACOUSTIC
1
SPEECH RECOGNITION ENGINE
2
SPEECH RECOGNITION INTERFACE
20
MICROPHONE
13
STUDENT USER
22
LOCAL TEXT POSITION MANAGEMENT DATABASE
17
TEXT POSITION PACER
5
READING COMPANION
6
EXECUTIVE PROGRAM
FINITE STATE MACHINE
4
ALTERNATE PRONUNCIATION & PHRASE DATABASE
7
GRAPHICAL USER INTERFACE
8
NON-SPEECH USER INTERFACE
15
STUDENT LEVEL CONTROLLER
14
AUDIO OUTPUT
12
TEXT POWER SET DATABASE
16
AUDIO CLIP DATABASE
10
STORY TEXT DATABASE
21
FEEDBACK MESSAGE DATABASE
17
SESSION DATABASE FOR REPLAY & RESUMPTION
11
STORY PAGE LAYOUT DATABASE
18
PICTURE PROMPT DATABASE
19
PAGE OVERVIEW DATABASE
9
READING LEVEL INFORMATION DATABASE (TASK CONTEXT CONTROLLER)

FIG.2

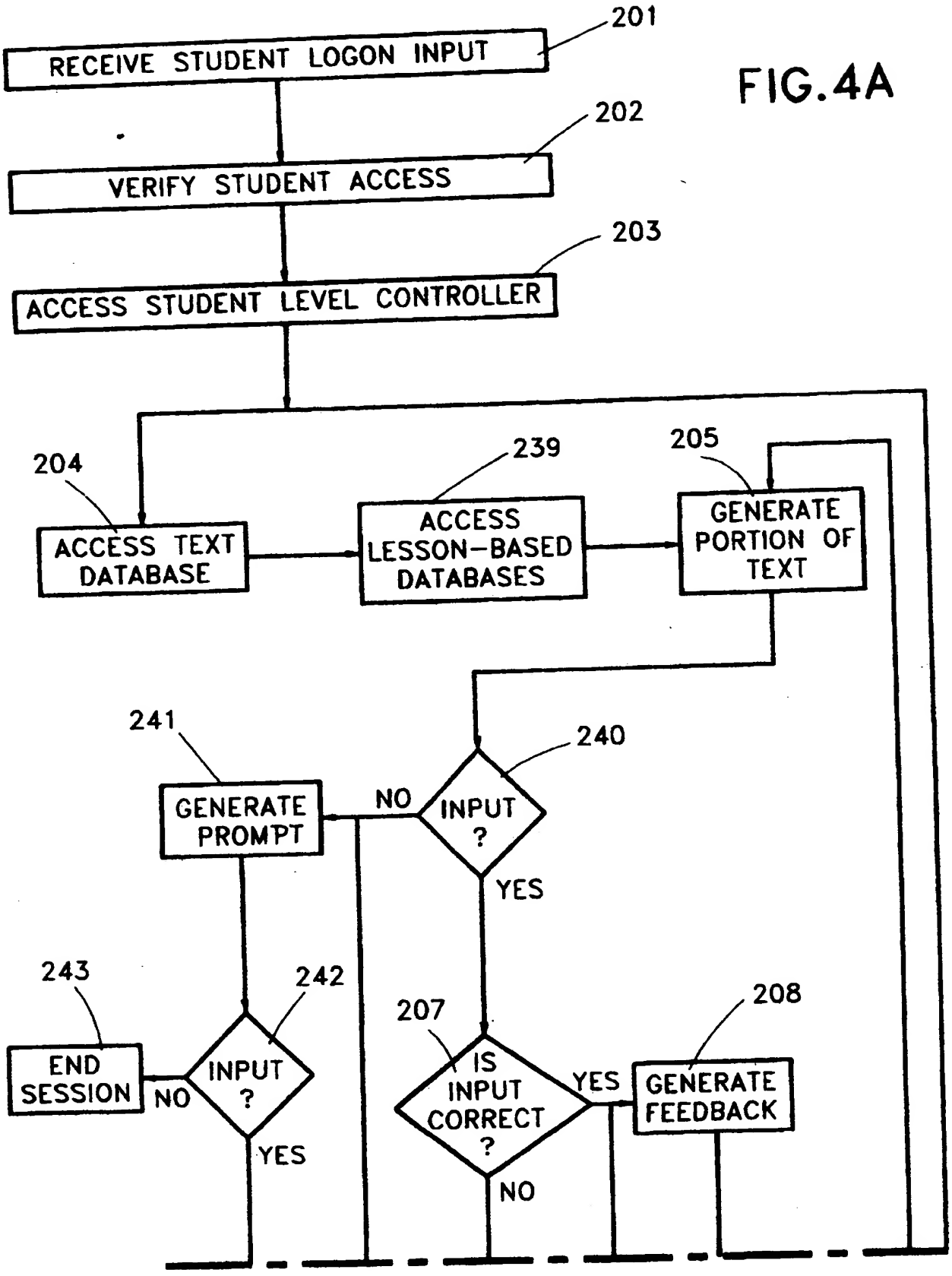
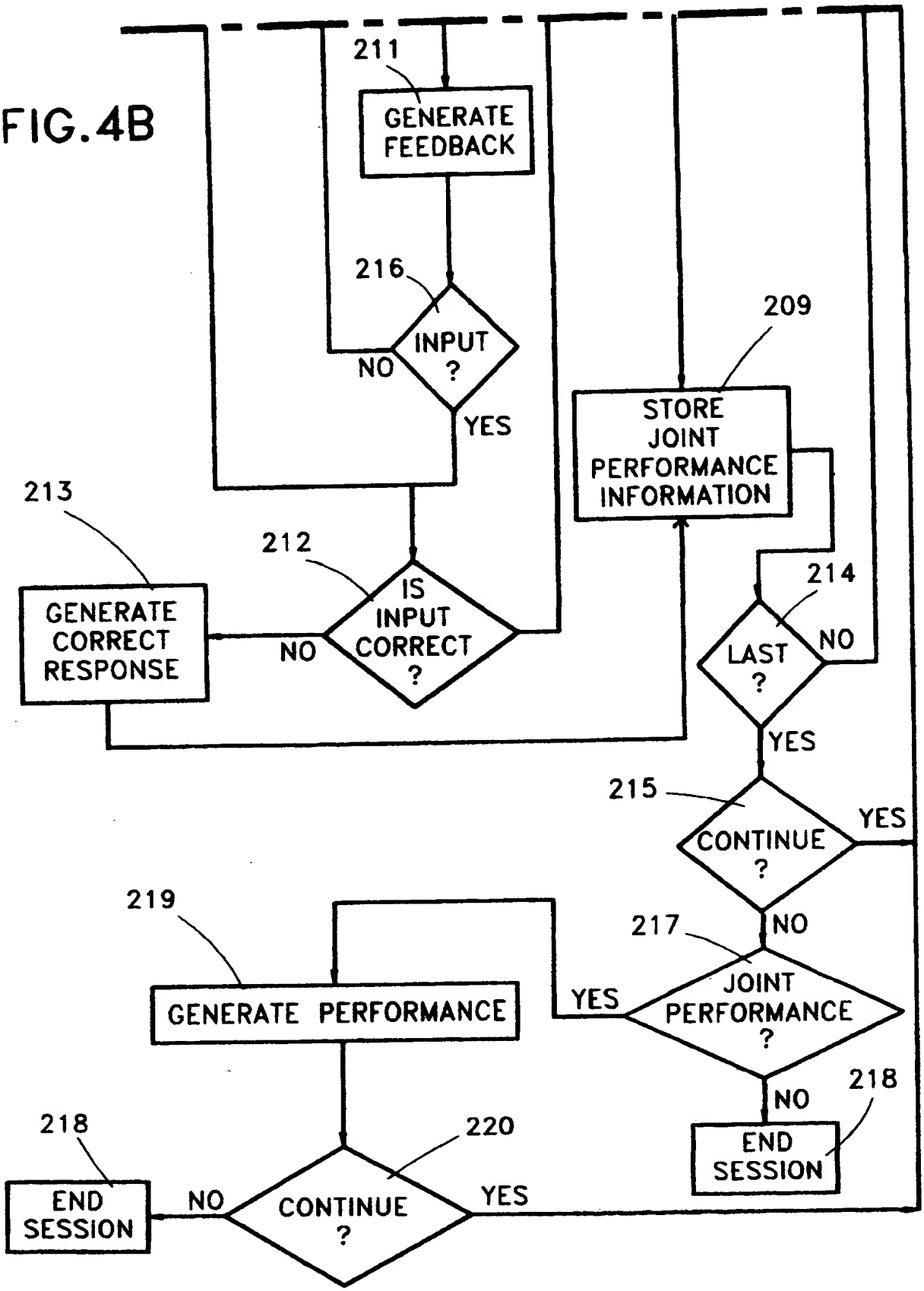

201
RECEIVE STUDENT LOGON INPUT
202
VERIFY STUDENT ACCESS
203
ACCESS STUDENT LEVEL CONTROLLER
204
ACCESS TEXT DATABASE
239
ACCESS LESSON-BASED DATABASES
205
GENERATE PORTION OF TEXT
241
GENERATE PROMPT
NO
240
INPUT ?
YES
243
END SESSION
NO
242
INPUT ?
YES
207
IS INPUT CORRECT ?
YES
208
GENERATE FEEDBACK
NO

FIG.4A

FIG.4B


211
GENERATE FEEDBACK
216
INPUT ?
NO
YES
209
STORE JOINT PERFORMANCE INFORMATION
213
GENERATE CORRECT RESPONSE
212
IS INPUT CORRECT ?
NO
214
LAST ?
NO
YES
215
CONTINUE ?
YES
NO
219
GENERATE PERFORMANCE
217
JOINT PERFORMANCE ?
YES
NO
218
END SESSION
218
END SESSION
220
CONTINUE ?
NO
YES